

for 1871, gives the best summary of what he has done to advance our knowledge of the Chinese avifauna.

During the latter part of the time that Swinhoe was working at the birds of the Chinese littoral, the interior of the country was being most ably investigated by Père Armand David; so that China, instead of being the *terra incognita* as regards our knowledge of its birds that it was twenty years ago, may now rank amongst the fairly explored countries of the globe.

Swinhoe's communications to this Journal commenced in 1860, after which scarcely a number, and certainly no volume, appeared without a contribution to its pages from him. His last communication to us bears the date of the same month as that of his death; and the fine Formosan species there described and figured, from a specimen obtained by Prof. Steere, supplements his own important discoveries in the same island.

Swinhoe was elected an Honorary Member of the British Ornithologists' Union in 1862, and passed to the list of Ordinary Members at his own choice in 1876. He was a Member of several of the scientific societies of London, as well as a Fellow of the Asiatic Society of Bengal. He was elected a Fellow of the Royal Society in 1876. It is much to be hoped that Mr. Swinhoe's fine collection of Chinese birds may be kept together in its entirety, and find a home in some public institution or private museum where the specimens will remain accessible, as they always were in their late owner's possession, to his brother workers in science.

THE IBIS.

FOURTH SERIES.

No. VI. APRIL 1878.

X.—*A Synopsis of the Genus Pomatorhinus.* By Lieutenant WARDLAW RAMSAY, F.Z.S., M.B.O.U., 67th Regiment.

(Plates III.—V.)

THE range of the genus *Pomatorhinus*, so far as is known, is confined to India, Ceylon, Assam and Arakan, Burmah, China, Formosa, Hainan, Malacca, Java, and Borneo. Twenty-one species are known to science, of which sixteen inhabit the continent of Asia. Of the remaining five insular forms one is found in Java (*P. montanus*, Horsf., type of the genus), two in the island of Formosa (*P. erythrocnemis*, Gould, and *P. nigrostellatus*, Swinhoe), and one in Ceylon (*P. melanurus*, Blyth), all peculiar to the islands on which they are found, whilst a fifth species, which inhabits Borneo (*P. borneensis*, Cabanis), is also found in Malacca. No species of *Pomatorhinus* has been recorded from Sumatra; but it is probable that when the mountainous regions of this island have been scientifically explored, one, if not two or more, possibly undescribed species may be revealed to us.

In the Austro-Papuan region is found a single species, which

should more correctly be placed in the genus *Pomatostomus* (Cabanis, Mus. Hein. i. p. 83), viz. *P. isidori*, Less. Voy. Coq. Zool. p. 680, pl. 29.

The members of this genus are mostly birds which frequent mountainous countries at moderate elevations. Their food seems to consist entirely of insects, and is usually collected by turning over dead leaves on the ground. They are gregarious in their habits, generally being found in small parties, or in pairs, making their way through thick bush-jungle, or hopping about on the ground below. Sometimes a considerable number are found creeping about in the same bush, and all chattering loudly. Mr. R. Swinhoe says, in writing of *P. musicus* (Ibis, 1863, p. 284), "There is not much music in its ordinary call-note; but when two or three are met together, and vie with one another in their strains, the effect is pleasing, though not to be compared to that of the Hwa-mei (*Garrulax taivanus*). When at rest in the middle of the day, hidden in some sombre hill-side wood, they keep on uttering at intervals a series of very liquid notes in regular cadence. These have an indescribably hollow and unnatural sound, and at first puzzle the listener to know whether they are produced by beast, bird, or insect." MM. David and Oustalet say, 'Ois. de la Chine,' p. 184, "C'est un oiseau (*P. gravivox*) très-rusé et très-difficile à découvrir. Il prend toujours à la même heure son bain quotidien et fait entendre, à la tombée de la nuit, son chant sonore et peu varié, mais remarquable par son étrangeté," and, on the authority of the Chinese, "dans certains districts on garde cet oiseau dans les maisons, où il détruit les insectes parasites, et particulièrement les punaises;" this statement, however, has not been confirmed by Père David's observation.

All the members of this genus are subject to considerable variations, both in dimensions and in plumage; but there is no tangible difference in plumage between the sexes.

For notes on the nidification of some species of *Pomatorhinus*, I refer the reader to Jerdon, 'B. of India,' p. 32, Swinhoe, 'Ibis,' 1863, p. 284, and Hume, 'Nests and Eggs of Indian Birds,' pp. 250 and 251.

1. *POMATORHINUS MONTANUS*.

Pomatorhinus montanus, Horsfield, Linn. Trans. xiii. p. 165 (1820) (type of genus); Zool. Res. in Java, pl. 51 (1824).

Head dark slaty brown, lores black, ear-coverts dark brown, a white supercilium from the base of the maxilla to the nape; the whole of the upper surface of the body, and sides of the neck and breast, bright reddish chestnut; primaries brown, faintly margined on the outer web with olive; secondaries, tertiar-ies, and outer webs of tail-feathers chestnut-brown; throat and breast white; flanks reddish chestnut, passing into chestnut-brown on the belly and lower tail-coverts. Bill yellow, culmen dark.

Wing 3·8 inches, tarsus 1·3, bill from gape 1·15, tail 4·2. Specimen descr. ex Java (*Wallace*): mus. Tweeddale.

Hab. Java.

According to Horsfield (*l.c.*) this bird is confined to the higher ranges of the hills, never descending below about 7000 feet. He further states that it builds its nest on high trees and feeds on berries and fruits or vegetables!! From existing evidence, however, it would appear that *Pomatorhini* are purely insectivorous in their food.

nest on ground

In Borneo and Malacca this species is replaced by the following smaller and distinct race.

2. *POMATORHINUS BORNEENSIS*.

Pomatorhinus borneensis, Cabanis, Mus. Heineanum, i. p. 84 (1850).

Pomatorhinus montanus, Horsfield, S. Müller, Verh. over de Nat. Gesch. Nederl. overz. Bez., Land- en Volkenk. p. 405.

Pomatorhinus borneensis, Cab., Salvad. Ucc. di Born. p. 210.

Specimens from Borneo are identical with those from Malacca, and differ from the Javan *P. montanus* in being constantly much smaller, in the upper parts being rather brighter, and in the secondaries, tertiar-ies, and tail being olive-brown above instead of chestnut-brown.

Wing 3·5, tarsus 1·1, bill from gape 1·1, tail 3·6. Spec. descr. ex Borneo (*Wallace*) et Malacca (*Maingay*): mus. Tweeddale. Iris yellow (*Doria*).

Hab. Borneo, Malacca.

3. POMATORHINUS MELANURUS.

Pomatorhinus melanurus, Blyth, J. A. S. B. xvi. p. 451 (1847); Ibis, 1867, p. 301; Holdsworth, P. Z. S. 1872, p. 447.

Upper surface, sides of breast, flanks, abdomen, and lower tail-coverts rufescent olive-brown, the crown dark brown, tinged with olivaceous; lores black; ear-coverts dark brown. a white supercilium from the nares to the nape; throat, breast, and centre of belly pure white. Spec. descr. ex Ceylon (*Nevill*): mus. Tweeddale.

Bill pale yellow; irides red brown; feet lead-colour (*Holdsworth*).

Hab. Ceylon.

There is considerable variation both in plumage and size between specimens from different parts of Ceylon; indeed Holdsworth (*l. c.*) hints at the possibility of there being two species in the island; but this I am not disposed to admit.

The small race which is found at Newera Eliya has the back olive-brown, without being in the least rufescent, whilst the larger race, of which there are specimens in Lord Tweeddale's museum, obtained by Mr. Spencer Chapman at Avis-havelle and Ruanwellé, near Colombo, has the above-mentioned part of a very bright rufescent olive-brown, and a few of the lateral breast- and flank-feathers partially white or centred white as in *P. schisticeps*, between which species and *P. montanus*, of Java, the present species is intermediate.

The dimensions of these two races, as they may be called, are as follows:—

Large. Wing 3·6 to 3·7 inches, bill from gape 1 to 1·5, tarsus 1·3, tail 4·2.

Small. Wing 3·2 to 3·5 inches, bill from gape 1 to 1·5, tarsus 1·25, tail 3·75.

4. POMATORHINUS SCHISTICEPS. (Plate III.)

Pomatorhinus schisticeps, Hodgson, As. Res. xix. p. 181 (1836); Jerdon, B. of Ind. ii. p. 29.

Pomatorhinus leucogaster, Gould, P. Z. S. 1837, p. 137.

Pomatorhinus montanus, Horsfield, M'Clelland, P. Z. S. 1839, p. 166.